

WHAT IS CLAIMED IS:

1. (Currently Amended) An exposure apparatus for exposing a substrate using a plurality of masters, said apparatus comprising:

a stage being able to install at least one of the plurality of masters;

a first housing surrounding said stage;

a second housing for stocking at least one of the plurality of masters, said second housing being installed adjacent to said first housing or installed in an interior of said first housing, and said second housing being allowed to communicate with said first housing; and

a third housing being installed between an inside space and an outside space of said first housing, said third housing being different from said first and second housings,

wherein said first and second housings are filled by an inert gas or are adapted to be evacuated.

2. (Previously Cancelled)

3. (Previously Amended) The apparatus according to claim 1, wherein

said third housing includes a load-lock chamber, and

said apparatus further comprises first opening/closing means between the outside of said first housing and said load-lock chamber, and second opening/closing means between said load-lock chamber and the inside of said first housing.

4. (Previously Amended) The apparatus according to claim 3, wherein in transferring the master from the outside to the inside of said first housing, said first opening/closing means is opened, the master is transferred from the outside of said first housing to the load-lock chamber, said first opening/closing means is closed, the load-lock chamber is controlled to a predetermined atmosphere, said second opening/closing means is opened, and the master is transferred to the inside of said first housing.

5. (Original) The apparatus according to claim 1, wherein said second housing is arranged in said first housing.

6. (Previously Amended) The apparatus according to claim 1, wherein said second housing is arranged outside said first housing and contacts said first housing.

7. (Original) The apparatus according to claim 6, wherein said second housing comprises third opening/closing means between said first housing and said second housing.

8. (Original) The apparatus according to claim 1, wherein said second housing has a shelf-like structure and can stock a plurality of masters.

9. (Original) The apparatus according to claim 1, wherein an atmosphere in said first housing is detected, and controlled in accordance with a detection result.

10. (Previously Amended) The apparatus according to claim 1, wherein said first housing incorporates:

alignment means for aligning the master;

first transfer means for transferring the master between said third housing and said second housing and between said second housing and said alignment means; and

second transfer means for transferring the master between said alignment means and the exposure position.

11. (Previously Amended) The apparatus according to claim 1, wherein said first housing has exposure beam transmission ports above and below an exposure position.

12. (Original) The apparatus according to claim 1, wherein the predetermined atmosphere includes an inert gas atmosphere.

13. (Original) The apparatus according to claim 12, wherein the atmosphere is controlled by a circulation system via cleaning means.

14. (Previously Amended) The apparatus according to claim 12, wherein inert gas for forming the predetermined atmosphere is supplied to an exposure position.

15. (Original) The apparatus according to claim 12, wherein inert gas for forming the predetermined atmosphere is supplied to a vicinity of said second housing in said first housing.

16. (Previously Amended) The apparatus according to claim 1, wherein the predetermined atmosphere includes a vacuum.

17. (Original) The apparatus according to claim 1, wherein an exposure light source includes an F₂ excimer laser.

18. (Currently Amended) An exposure apparatus for exposing a substrate using a plurality of masters, said apparatus comprising:

a stage being able to install at least one of the plurality of masters;

a first housing surrounding said stage;

a second housing for stocking at least one of the plurality of masters, said second housing being installed adjacent to said first housing or installed in an interior of said first housing, and said second housing being allowed to communicate with said first housing;

a third housing being installed between an inside space and an outside space of said first housing, said third housing being different from said first and second housings;

a display;

a network interface; and

a computer for executing network software,

wherein said first and second housings are filled by an inert gas or are adapted to be evacuated, and maintenance information of the exposure apparatus is communicated via a computer network.

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19. (Original) The apparatus according to claim 18, wherein the network software provides on said display a user interface for accessing a maintenance database provided by a vendor or user of the exposure apparatus and connected to an external network outside a factory in which the exposure apparatus is installed, and information is obtained from the database via the external network.

20. (Previously Cancelled)

21. (Currently Amended) A semiconductor device manufacturing method comprising the steps of:

installing, in a semiconductor manufacturing factory, manufacturing apparatuses, including an exposure apparatus, for performing various processes; and manufacturing a semiconductor device by performing a plurality of processes, using the manufacturing apparatuses,

wherein the exposure apparatus has:

- (i) a stage for holding at least one of a plurality of masters;
- (ii) a first housing surrounding the stage,
- (iii) a second housing for stocking at least one of the plurality of masters,

the second housing being installed adjacent to said first housing or installed in an interior of said first housing, and said second housing being able to communicate with the first housing, and

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(iv) a third housing installed between an inside space and an outside space of the first housing, said third housing being different from said first and second housings, and

wherein the first and second housings are filled by an inert gas or are adapted to be evacuated.

22. (Original) The method according to claim 21, further comprising steps of:
connecting the manufacturing apparatuses via a local area network; and
communicating information about at least one of the manufacturing apparatuses between the local area network and an external network outside the semiconductor manufacturing factory.

23. (Previously Amended) The method according to claim 22, further comprising performing one of (i) accessing a database provided by a vendor or user of the exposure apparatus via the external network, thereby obtaining maintenance information of the exposure apparatus by data communication, and (ii) performing data communication between the semiconductor manufacturing factory and another semiconductor manufacturing factory via the external network, thereby performing production management.


24. (Currently Amended) A semiconductor manufacturing factory comprising:
manufacturing apparatuses, including an exposure apparatus, for performing various processes;

a local area network for connecting said manufacturing apparatuses; and

a gateway for allowing access to an external network outside the factory from said local area network,

wherein information about at least one of said manufacturing apparatuses can be communicated, and

the exposure apparatus has:

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- (i) a stage for holding at least one of a plurality of masters;
 - (ii) a first housing surrounding the stage,
 - (iii) a second housing for stocking at least one of the masters, the second housing being installed adjacent to said first housing or installed in an interior of said first housing, and said second housing being able to communicate with the first housing, and
 - (iv) a third housing installed between an inside space and an outside space of the first housing, said third housing being different from said first and second housings, and

wherein the first and second housings are filled by an inert gas or are adapted to be evacuated.

25. (Currently Amended) A maintenance method for an exposure apparatus installed in a semiconductor manufacturing factory, said method comprising steps of:

making a vendor or user of the exposure apparatus provide a maintenance database connected to an external network outside the semiconductor manufacturing factory;

allowing access to the maintenance database from the semiconductor manufacturing factory via the external network; and

transmitting maintenance information accumulated in the maintenance database to the semiconductor manufacturing factory via the external network,

wherein the exposure apparatus has:

- (i) a stage for holding at least one of a plurality of masters;
- (ii) a first housing surrounding the stage,
- (iii) a second housing for stocking at least one of the masters, the second housing being installed adjacent to said first housing or installed in an interior of said first housing, said second housing being able to communicate with the first housing, and
- (iv) a third housing installed between an inside space and an outside space of the first housing, said third housing being different from said first and second housings, and

wherein the first and second housings are filled by an inert gas or are adapted to be evacuated.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (New) The apparatus according to claim 1, wherein said first housing is installed between said second and third housings.

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